APPENDIX I: LIBRARY DESCRIPTIONS

The BMARTXR02 library was constructed using RNA isolated from treated SH-SY5Y cells derived from a metastatic bone marrow neuroblastoma, removed from a 4-year-old Caucasian female. The medium was MEM/HAM'S F12 with 10% fetal calf serum. The cells were plated on 10 cm Petri dishes. After reaching about 80% confluency, cells were treated with 6-Hydroxydopamine (6-OHDA) at 100 microM for 8 hours.

The TLYMUNT01 library was constructed using RNA isolated from resting allogenic T-lymphocyte tissue removed from an adult (40-50-year-old) Caucasian male.

The TBLYNOT01 library was constructed at Stratagene (STR937214), using RNA isolated from a hybrid of T-B lymphoblasts from an untreated leukemic cell line.

The U937NOT01 library was constructed at Stratagene (STR937207), using RNA isolated from the U937 untreated monocyte-like cell line. This line (ATCC CRL1593) was established by C. Sundstrom and K. Nilsson in 1974 from malignant cells obtained from the pleural effusion of a 37-year-old Caucasian male with diffuse histiocytic lymphoma (ref: Int. J. Cancer (1976) 17: 565-577).

The BMARTXT03 Library was constructed using RNA isolated from treated SH-SY5Y cells derived from a metastatic bone marrow neuroblastoma, removed from a 4-year-old Caucasian female. The medium was MEM/HAM'S F12 with 10% fetal calf serum. The cells were plated on 10 cm Petri dishes. After reaching about 80% confluency cells were treated with 6-Hydroxydopamine (6-OHDA) at 100 microM for 8 hours.

The SPLNTUT02 library was constructed using RNA isolated from spleen tumor tissue removed from a 45-year-old male during a staging laparotomy. Pathology indicated nodular sclerosing type of Hodgkin's disease forming innumerable nodules. Multiple lymph nodes were positive for Hodgkin's disease.

The MCLDTXT04 library was constructed using RNA isolated from treated, derived dendritic cells from umbilical cord blood CD34+ precursor cells removed from a male. The cells were derived with granulocyte/macrophage colony stimulating factor (GM-CSF), tumor necrosis factor alpha (TNF alpha), and stem cell factor (SCF), then treated with phorbol myristate acetate (PMA), and Ionomycin. The GM-CSF was added at time 0 at 100 ng/ml, the TNF alpha was added at time 0 at 2.5 ng/ml, and the SCF was added at time 0 at 25 ng/ml. The PMA and Ionomycin were added at 13 days for five hours. Incubation time was 13 days.

The THYMFET03 library was constructed using 1 microgram of polyA RNA isolated from thymus tissue removed from a Caucasian male fetus who died from fetal demise.

The MYEPTXT01 library was constructed using RNA isolated from a treated K-562 cell line derived from chronic myelogenous leukemia precursor cells removed from a 53-year-old female. The cells were treated with 5-aza-2'deoxycytidine, 1microM for 72 hours.

The SPLNFET02 library was constructed using RNA isolated from spleen tissue removed from a Caucasian male fetus who died at 23 weeks' gestation from premature birth.

The TLYMNOT08 library was constructed using 1.0 microgram of polyA RNA isolated from anergic allogenic T-lymphocyte tissue removed from an adult (40-50-year-old) Caucasian male. The cells were incubated for 3 days in the presence of OKT3 mAb (tissue culture flasks coated with 1microgram/ml OKT3) and 5% human serum.

The BMARUNP01 Sequence data and library information for this pooled bone marrow tumor cell line library were obtained from the Mammalian Gene Collection (MGC) (PD Name: NIH_MGC_54-5). Libraries were described as being made from bone marrow chronic myelogenous leukemia and acute mylogenous leukemia removed from a pool of donors.